

CLAIMS

What is claimed is:

1. An apparatus for providing context sensitive dynamic data via wireless networks comprising:

- 5 an information source element configured to provide data to a data service element which uses the provided data to register with a directory service element; and wherein a client subsequently requests a service from a directory service polling subelement, which sends a lookup query to the directory service which, in turn provides services matching those requested by the client, to a candidate service filtering subelement, where candidate
- 10 services are isolated, and are submitted to a target service filtering subelement; where target services are isolated and provided to the client and the isolated candidate services serve as the basis for registering the client's interest with a client update decision subelement and the client update decision subelement provides an updated service entry of candidate services to the target service filtering subelement and the directory service
- 15 update decision subelement provides an updated service entry to the directory service.

2. The apparatus for providing context sensitive dynamic data via wireless networks as set forth in claim 1, wherein the information source is at least one of the following:

- i. a permanently mounted video camera,
- 20 ii. a video camera affixed to a vehicle,
- iii. a strategically placed environmental sensor,

- iv. an environmental sensor affixed to a vehicle,
- v. a satellite based position sensor affixed to a vehicle.

3. The apparatus for providing context sensitive dynamic data via wireless networks as
5 set forth in claim 1, wherein the data service element includes at least one element from
the list consisting of:

a computer configured to perform pre-specified functions;

a device configured to respond to operator instructions; a device configured to respond to
external instructions; a device configured to respond to internal system instructions; and

10 an application-specific integrated circuit; a preprogrammed logic circuit.

4. The apparatus for providing context sensitive dynamic data via wireless networks as
set forth in claim 1, wherein the client is in a mobile vehicle and the information source
includes at least one of the following:

- 15 i. a terrestrially mounted temperature sensor;
- ii. a terrestrially mounted video camera;
- iii. a vehicle mounted satellite based position indicator;
- iv. a vehicle mounted video camera.

5. The apparatus for providing context sensitive dynamic data via wireless networks as set forth in claim 1, wherein the client has a mobility pattern consistent with that of a pedestrian, and the information source is a plurality of sources including a vehicle and a stationary sensor.

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6. The apparatus for providing context sensitive dynamic data via wireless networks as set forth in claim 1, wherein the updated service entry is periodically updated even in the absence of an existing client, and wherein the data service and the directory service are located in a location remote from the personal lookup agent.

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7. The apparatus for providing context sensitive dynamic data via wireless networks as set forth in claim 1, wherein the information source is located in at least one location, and the directory service, data service and personal lookup agent are in at least one other location.

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8. The apparatus for providing context sensitive dynamic data via wireless networks as set forth in claim 7, wherein the information source is located in at least one location, and the directory service, data service and personal lookup agent are in at least one other general location and at least two of the elements are physically interconnected and at least two of the parts are interconnected using wireless based technology.

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9. The apparatus for providing context sensitive dynamic data via wireless networks as set forth in claim 8, wherein the operative interconnect between the information source and the client, is characterized by at least one wireless link.

5 10. A method for providing context sensitive dynamic data via wireless networks comprising:

- i. providing an information source element;
- ii. providing a data service element including at least one of the following:
 - 10 a. a directory service update decision subelement and a
 - b. a client update decision subelement
- iii. providing a directory service;
- iv. providing a personal lookup agent, including at least one of the following subelements:
- v. a directory service polling subelement
- 15 vi. a candidate service filtering subelement;
- vii. a target service filtrating subelement;

wherein the information source is configured to provide data to the data service element;

which is configured to register with the directory service element; and

wherein a client requests a service from the personal lookup agent's directory service

20 polling subelement which sends a lookup query to the directory service which provides

services matching those services requested to the candidate service filtering subelement;
and wherein the resulting isolated candidate services are submitted to a target service
filtering subelement; and wherein the isolated target services are provided to the client;
and wherein the isolated candidate services serve as the basis for registering the client's
5 interest with the client update decision subelement; and

wherein the client update decision subelement provides an updated service entry of
candidate services to the target service filtering subelement and wherein the directory
service update decision subelement provides an updated service entry to the directory
service element and wherein the candidate services serve as the basis for the personal
10 lookup agent element's registration of interests with the client update decision
subelement which is fed by the information source element.

11. The method for providing context sensitive dynamic data via wireless networks as set
forth in claim 10 wherein after the initial service lookup utilizing the directory service
15 element, the client contact with the information source subelement, via the personal
lookup agent element is substantially confined to the client update decision subelement.

12. The method for providing context sensitive dynamic data via wireless networks as set
forth in claim 10, wherein the information source is configured to provide data to the data
20 service in at least one of the following manners:

- i. utilizing a permanently mounted video camera,

- ii. utilizing a video camera affixed to a vehicle,
- iii. utilizing a strategically placed environmental sensor,
- iv. utilizing an environmental sensor affixed to a vehicle,
- v. utilizing a satellite based position sensor affixed to a vehicle.

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14. The method for providing context sensitive dynamic data via wireless networks as set forth in claim 10, wherein the data service element includes utilizing at least one of the following:

- i. a computer configured to perform pre-specified functions
- 10 ii. a device configured to respond to operator instructions;
- iii. a device configured to respond to external instructions;
- iv. a device configured to respond to internal system instructions;
- v. an application-specific integrated circuit;
- vi. a preprogrammed logic circuit.

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15. The method for providing context sensitive dynamic data via wireless networks as set forth in claim 10, wherein the client is in a mobile vehicle and the information source utilizes at least one of the following:

- i. a terrestrially mounted temperature sensor;
- 20 ii. a terrestrially mounted video camera;

iii. a vehicle mounted satellite based position indicator;

iv. a vehicle mounted video camera.

16. The method for providing context sensitive dynamic data via wireless networks as set forth in claim 10, wherein the client is a pedestrian, and the information source utilizes a plurality of sources including a vehicle and a stationary sensor.

17. The method for providing context sensitive dynamic data via wireless networks as set forth in claim 10, wherein the updated service entry is periodically updated even in the absence of an existing client, and wherein the data service and the directory service are located in a location remote from the personal lookup agent.

18. The method for providing context sensitive dynamic data via wireless networks as set forth in claim 10, utilizing the information source in at least one location, and utilizing the directory service, data service and personal lookup agent in at least one other location.

19. The method for providing context sensitive dynamic data via wireless networks as set forth in claim 18, wherein the information source is utilized in at least one location, and the directory service, data service and personal lookup agent are utilized at least one other general location and at least two of the elements are utilized while physically

interconnected and at least two of the elements are utilized while interconnected using wireless based technology.

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20. The method for providing context sensitive dynamic data via wireless networks as set
5 forth in claim 19, wherein the operative interconnect between the information source and the client, is characterized by utilizing at least one wireless link.

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21. An apparatus configured to provide data to a mobile client, wherein the provided data is relevant to the location of the client, and wherein the data is dynamically updated and
10 the client receives contextually relevant data despite changing position.

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22. The apparatus of claim 21, wherein the client provides criteria for what constitutes relevant data, and only data meeting the criteria are provided to the user.

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15 23. The apparatus of claim 21, wherein the client provides criteria for what constitutes relevant data, and such data is only provided upon request for an update, unless there is a triggering event, which automatically provides an update to a user.